

IEPA Log No.: **C-0197-15**
CoE appl. #: **2015-266**

Public Notice Beginning Date: **January 31, 2017**
Public Notice Ending Date: **February 21, 2017**

Section 401 of the Federal Water Pollution Control Act
Amendments of 1972

Section 401 Water Quality Certification to Discharge into Waters of the State

Public Notice/Fact Sheet Issued By:

Illinois Environmental Protection Agency
Bureau of Water
Division of Water Pollution Control
Permit Section
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276
217/782-3362

Name and Address of Discharger: Mr. Thomas Martin, 14532 E. Saddle Club Road, PO Box 25, Bonnie, IL 62816

Discharge Location: Section 33, T3S, R3E of the 3rd P.M. in Jefferson County near Bonnie

Name of Receiving Water: Unnamed Tributaries to Atchison Creek.

Project Description: Martin Family Lake.

The Illinois Environmental Protection Agency (IEPA) has received an application for a Section 401 water quality certification to discharge into the waters of the state associated with a Section 404 permit application received by the U.S. Army Corps of Engineers. The Public Notice period will begin and end on the dates indicated in the heading of this Public Notice. The last day comments will be received will be on the Public Notice period ending date unless a commenter demonstrating the need for additional time requests an extension to this comment period and the request is granted by the IEPA. Interested persons are invited to submit written comments on the project to the IEPA at the above address. Commenters shall provide their names and addresses along with comments on the certification application. Commenters may include a request for public hearing. The certification and notice number(s) must appear on each comment page.

The attached Fact Sheet provides a description of the project and the antidegradation assessment.

The application, Public Notice/Fact Sheet, comments received, and other documents are available for inspection and may be copied at the IEPA at the address shown above between 9:30 a.m. and 3:30 p.m. Monday through Friday when scheduled by the interested person.

If written comments or requests indicate a significant degree of public interest in the certification application, the IEPA may, at its discretion, hold a public hearing. Public notice will be given 30 days before any public hearing. If a Section 401 water quality certification is issued, response to relevant comments will be provided at the time of the certification. For further information, please call Thaddeus Faught at 217/782-3362.

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Fact Sheet for Antidegradation Assessment

Mr. Thomas Martin – Unnamed Tributaries to Atchison Creek – Jefferson County

IEPA Log # C-0197-15

COE # MVS-2015-266

Contact: Brian Koch (217/558-2012)

January 31, 2017

The Applicant has applied for Section 401 water quality certification for impacts associated with construction of a proposed lake located 1.7 miles northeast of Bonnie in the Southeast ¼ of Sections 33, Township 03 South, Range 03 East, in Jefferson County, Illinois. Martin Family Lake would be constructed within the Applicant's own property boundaries for the purpose of recreation and a fire protection source for the nearby homes and buildings. The lake would consist of a 19-acre reservoir with normal pool elevation of 450-feet, mean sea level. The watershed for the lake consists of 225-acres of undeveloped rural land with primary uses of woodlands and row crops. The lake has been designed from a base elevation of 432-feet to the top of the dam at 454.75-feet (National Geodetic Vertical Datum 1929). The normal pool would be established at an elevation of 450.0-feet, which would create an impoundment of approximately 112 acre-feet. The spillway for Martin Family Lake would consist of two 6-foot diameter standpipes with each having a 36-inch diameter reinforced concrete outflow pipe. The emergency spillway would be designed as a trapezoidal weir having a width of 50-feet and would be set at 452.5-feet. An earthen dam embankment would be constructed with a 20-foot wide top, a 6:1 slope on the downstream side and a 3:1 slope of the upstream side. The downstream toe of the earthen dam as proposed would be approximately 168-feet north of the centerline of East Saddle Club Road at its nearest point. The height of the dam would be 22.75-feet.

Dam construction and resulting inundation of the project area would impact three unnamed tributaries of Atchison Creek. One stream has been delineated as intermittent and the remaining two streams have been delineated as ephemeral. Approximately 2,057-linear feet of the intermittent stream as well as 675-linear feet and 165-linear feet of the ephemeral streams would be impacted by the project. Compensatory mitigation for the stream impacts was assessed utilizing the Illinois Stream Mitigation Method (ISMM), which resulted in a total of 11,211.77 debits calculated using the Adverse Impact Worksheet. The Applicant is proposing to provide compensatory mitigation for the stream impacts through the restoration of a channelized section of the intermittent stream downstream of the project site, south of Saddle Club Road, located in the Northeast ¼ of Section 4, Township 04 South, Range 03 East of the 3rd Principle Meridian, Jefferson County, Illinois. The existing channelized portion of the stream is approximately 2,015-linear feet in length and is characterized as having a Rosgen G channel with little access to the adjacent floodplain. Construction of a meandering, 2,075-linear foot Rosgen E channel with a small Newbury Riffle at the outlet end for stability is proposed. The proposed channel would be connected to the adjacent floodplain at the predicated 2-year discharge interval. The new channel would be constructed either prior to or concurrently with the construction of the lake. The existing channelized stream, which possesses a narrow, woody corridor, would be left intact except for the two earthen "blocks" that would be placed in the existing channel to direct flow into the new meandering channel at the two locations. The remaining portions of the existing channel would then become small linear wetlands. In addition, the proposed riparian buffer to be established adjacent to the new channel would connect with the existing narrow woody corridor creating a woody corridor that would average 150-feet in total width. When the proposed compensatory mitigation plan is run through the ISMM worksheets it generates 12,740 credits, offsetting the 11,211.77 debits generated by the impacts associated with the lake construction. The stream mitigation site would be deed restricted in perpetuity.

Identification and Characterization of the Affected Water Body.

The unnamed tributaries of Atchison Creek are General Use waters with zero 7Q10 flow. In southern Illinois, streams with five square miles of watershed or less are characterized as zero flow 7Q1.1 streams. These streams will exhibit no flow for at least a continuous seven day period nine out of ten years. Aquatic life communities in these headwater streams are tolerant of the effects of drying. Depending on the rainfall received before biological surveys, either a very limited aquatic life community, or no community at all would be found. Given this flow regime, no additional biological characterization is required. The combined watershed of the three unnamed tributaries is 3.63 square miles, thus the streams are zero flow 7Q1.1 streams. The unnamed tributaries, as well as Atchison Creek (Segment NJA), have not been assessed under the Agency's 305(b)/303(d) program and have not been given an integrity rating or been listed as biologically significant in the 2008 Illinois Department of Natural Resources publication *Integrating Multiple Taxa in a Biological Stream Rating System*, nor are they enhanced in regards to the dissolved oxygen water quality standard.

Identification of Proposed Pollutant Load Increases or Potential Impacts on Uses.

Pollutant load increases that would be associated with this project include increases in suspended solids during construction activities. Construction of the project would permanently impact 2,897 linear feet of streams through dam construction, grading activities, and inundation. During construction the aquatic life uses of the impacted streams would be removed, but upon completion the 19 acre lake and the compensatory stream mitigation provided downstream would more than offset the temporary loss of aquatic life uses.

Fate and Effect of Parameters Proposed for Increased Loading.

The increase in suspended solids would be local and temporary. Erosion control measures during construction would be utilized to retain runoff onsite to the greatest practical extent and minimize downstream transport of suspended solids. Once constructed, the residence time provided by the lake would aid in the settling of suspended solids and improve downstream water quality.

Purpose and Social & Economic Benefits of the Proposed Activity.

The purpose of this project is to construct a lake which would provide a reliable source of water for fire protection, provide aesthetics and increase property value of the area, provide waterfowl habitat, and provide recreational opportunities for fishing and boating. The lake will also provide a water source for nearby wetland management.

Assessments of Alternatives for Less Increase in Loading or Minimal Environmental Degradation.

The construction of the proposed project would follow guidelines set forth by the Agency and USACE which would ensure that BMPs are properly employed to minimize environmental impacts. The Applicant assessed alternatives which included a no action alternative, an alternative location consideration, and an alternative size consideration. The no action alternative was rejected due to the desire for a recreation area and the need for fire protection. The alternative location consideration was

rejected because the Applicant does not own any other land that is capable of having a lake constructed on it. The alternative size consideration was rejected because a smaller sized lake would provide shorter residence times which would reduce the amount of sediment storage, and a smaller lake would provide diminished recreational opportunities and reduced aquatic habitat for fish and waterfowl.

Summary Comments of the Illinois Department of Natural Resources, Regional Planning Commissions, Zoning Boards or Other Entities.

The IDNR EcoCAT system was consulted on June 29, 2016. It was immediately determined that protected resources are not in the vicinity of the project location. Consultation was immediately terminated in the June 29, 2016 automated report from IDNR.

Agency Conclusion.

This preliminary assessment was conducted pursuant to the Illinois Pollution Control Board regulation for Antidegradation found at 35 Ill. Adm. Code 302.105 (antidegradation standard) and was based on the information available to the Agency at the time this antidegradation review summary was written. We tentatively find that the proposed activity would result in the attainment of water quality standards; that all existing uses of the streams would be compensated with mitigation; that all technically and economically reasonable measures to avoid or minimize the extent of the proposed increase in pollutant loading have been incorporated into the proposed activity; and that this activity would be beneficial due to the use of the lake for fire protection and recreation. Comments received during the 401 Water Quality Certification public notice period will be evaluated before a final decision is made by the Agency.